

Eagle Harbor Recycling Initiative

Eagle Harbor Township

Keweenaw County

Project goals and objectives (tasks)

The ultimate goal of this initiative is to decrease Eagle Harbor Townships' and its neighboring communities waste to landfill and increase the recycling rate by the collection of recyclable cardboard. The five main tasks were to 1. Obtain a baler; 2. Contract with a hauler to pick up the bales; 3. Collect and bale cardboard; 4. Reach out to the community, and; 5. Maintain the equipment.

Extent goals and objectives were met

Finding success in this program is as simple as looking at the amount of cardboard sent to market. From the beginning of the program in July 2015 until July of 2017, the Township has collected, baled, and sent 35.58 Tons to market. Overall recycling however is determined utilizing the U.S. EPA standard recycling rate calculation:

$$\text{Recycling rate \%} = \frac{\text{Total Waste Recycled}}{\text{Total Waste Generated (disposed and recycled)}} \times 100$$

$$\text{Eagle Harbor 2014 rate} = \frac{8.7 \text{ Ton (all Metal)}}{120.2 \text{ Tons}} \times 100 = 7\%$$

$$\text{Eagle Harbor 2016 rate} = \frac{27.825}{151.835} \times 100 = 18.3\%$$

The 2016 rate includes garbage hauled by Waste Management (113.32T,) Eagle Harbor Townships' one day Junk Jettison Day (10.69T,) baled cardboard bought by Caraustar (20.825T,) and metal hauled by a private company, picked up quarterly and estimated (7T.) The recycling rate for 2014 reflects the recycling of metal which was the only product that the Township was recycling. Obviously, with the addition of cardboard our rate has jumped up, and will continue to climb as more recycling options are explored.

At early onset, the first obstacle was the cardboard that was coming from Grant Township. They were collecting it from residents and businesses in an enclosed trailer that was very difficult to pack, and to unload. Through collaboration from our solid waste workers, and their public works employees, a two cart solution was implemented. Two carts (4 feet x 6 feet x 4 feet tall) were built by a local machine shop with industrial wheels, and removable pipes on the sides. Using the two carts, one at a time, they would fill one, bring it to us and return with the already unloaded cart. Within a couple months they had two more carts built, and now haul two carts at a time, making trips every week or two. The solution has made their drop off a ten minute process, and they are loaded back up with two empty carts.

Baling of cardboard is a labor intensive, but a simple, process. Initially, our salaried Public Works director was the main baler. Utilizing his off time, he would bale and maintain the equipment. After several months he trained a couple of volunteers and a couple of casual labor employees to do the task. When the director was out of work due to surgery, his casual labor employee took over the baling. With

a couple of hours, a couple times a week, the pile of cardboard is baled and set off to the side awaiting shipment to market. Being a simple process, anyone can be trained to bale the cardboard.

Perhaps the biggest hurdle within this project was the education of the public. When we decided on our hauler, they were specific to requesting only corrugated cardboard. Removing paperboard, waxed cardboard, most of the excess packing tape, and getting people to flatten their boxes was the challenge. Through flyers handed out at collection days, posting on the Township website, and talking to residents as they brought their cardboard in, the process became more streamlined.

Benefits

The obvious benefit from this project is the reduction of cardboard in our compacting dumpster that ends up in the landfill. A couple of other benefits surfaced as the project went on. First of all, was the cooperation between local governments to get the project rolling. Partnering with Grant Township to collect their material was key to the success of this, if we didn't get their cardboard, our numbers sent to market would be a quarter of what they are. As we partnered with Grant Township our relationship has strengthened and we consult on other governmental issues as well. Committing to recycling was something that full time and seasonal residents have been striving for. As we collected just cardboard, the momentum was building to do more recycling. We kept pushing Waste Management to do something, and finally in May of 2017 single stream recycling was offered and Eagle Harbor Township converted one of our compacting dumpsters into a single stream recycle-only container. As we continue to collect cardboard separately from single stream, Grant Township is researching their alternatives and may start their own recycling. With exact numbers for single stream recycling and garbage hauled by Waste Management, our recycling rate for 2018 should easily surpass 20%.

List of Partners

Grant Township – Brings business and residential cardboard, no charge.

Eagle River Inn, Inc. and Fitzgerald's Restaurant – Located in neighboring Houghton Township, brings business cardboard, no charge.

Fort Wilkens State Park – Brings business and customer cardboard, no charge.

List of Products Created

The only product the Township produces are the 7-800 pound bales that are sold to market.

Project sustainability

Collecting cardboard, baling and selling to market doesn't take much effort. As long as we have the equipment and manpower available, the Township will continue to do it. Holding cardboard out of the single stream container will allow more items to be recycled and provide a bit of income to offset costs.

Other contract Requirements

None

Release of Claims Letter

Attached



EAGLE HARBOR TOWNSHIP

321 Center Street
Eagle Harbor, Michigan 49950-9722

Phone: 906-289-4407 • Fax: 906-289-4462

E-mail: office@eagleharbortwp.org • Web: www.eagleharbortwp.org

Date August 20th, 2017

Subject: 2015 Pollution Prevention Grants Program
Eagle Harbor Recycling Initiative # 430268-15
Release of Claims

Devan Dodge
Grant Administrator
Office of Environmental Assistance
P.O. Box 30457
Lansing, MI 48909

Dear Ms. Dodge:

As required before the final payment under the grant agreement for the Eagle Harbor Recycling Initiative, Tracking Code #430268-15, this letter is to inform you that all tasks required by the MDEQ contract for this project have been satisfactorily completed. Therefore, the grantee, Eagle Harbor Township, shall be and remain liable, in accordance with the applicable law, for all damages to the State of Michigan, for any of the services furnished under this agreement.

In addition, the Grantee executes and delivers to the State a release of all claims against the State arising under or by Virtue of this agreement. Therefore, termination of this agreement or settlement will be acknowledged with the final payment being released to Eagle Harbor Township.

Please let me know if you have any questions or need anything further, you can contact me at 906-289-4407.

Sincerely,

Rich Probst, Jr.
Supervisor, Eagle Harbor Township

Recycling Rates 2016

Amount in Tons		Amount in Tons
Cardboard	41650 Lbs	20.825
		Recycled waste 27.825
Metal - Quarterly pickup estimate	14000 Lbs 4*3500	7
Garbage Collection	113.32 Ton	113.32
Junk Jettison Day	10.69 Ton	10.69
Total Waste Collected		151.835

Recycling rate =	$\frac{\text{Total Waste Recycled}}{\text{Total Waste Generated}} \times 100$	
	$\frac{27.825}{151.835} \times 100$	
	18.32581421	= 18.3%

Cardboard Collection

Date	No. Bales Picked Up	Weight/Bale - lbs	Total Weight - lbs	Price per ton	Fees per ton	Gross Amount	Net Amount
Q1	None						
Q2	None						
Q3							
11/18/2015	12	750	9000	\$ 70.00	\$ 40.00	\$ 315.00	\$ 135.00
Q4			0				
1/27/2016	5	700	3500	\$ 65.00	\$ 40.00	\$ 113.75	\$ 43.75
Q5			0				
4/16/2016	5	700	3500	\$ 70.00	\$ 40.00	\$ 122.50	\$ 52.50
6/14/2016	7	700	4900	\$ 85.00	\$ 40.00	\$ 208.25	\$ 110.25
Q6			0				
7/19/2016	6	800	4800	\$ 90.00	\$ 40.00	\$ 216.00	\$ 120.00
8/1/2013	9	750	6750	\$ 100.00	\$ 40.00	\$ 337.50	\$ 202.50
8/15/2016	4	750	3000	\$ 100.00	\$ 40.00	\$ 150.00	\$ 90.00
9/28/2016	12	800	9600	\$ 108.25	\$ 40.00	\$ 519.60	\$ 327.60
Q6 Total=	31		24150			\$ -	\$ 740.10
Q7			0				
11/9/2016	7	800	5600	\$ 98.50	\$ 40.00	\$ 275.80	\$ 163.80
Q7 Total=	7		5600		\$ 40.00	\$ -	\$ 163.80
Q8			0				
2/21/2017	7	787	5509	\$ 130.00	\$ 40.00	\$ 358.09	\$ 247.91
Q8 Total=	7		5509			\$ 358.09	\$ 247.91
Post P2			0		\$ 40.00	\$ -	\$ -
5/17/2017	6	750	4500	\$ 152.00	\$ 40.00	\$ 342.00	\$ 252.00
6/21/2017	7	750	5250	\$ 167.40	\$ 40.00	\$ 439.43	\$ 334.43
7/19/2017	7	750	5250	\$ 167.40	\$ 40.00	\$ 439.43	\$ 334.43
Post P2 Total=	20		15000			\$ 439.43	\$ 920.85
Totals:	82		71159	***Values for 7/19 are estimated***			\$ 2,414.16
			35.58	Tons Total		\$ 3,837.34	\$ 2,414.16







